Asian Gypsy Moth in Idaho, 2004
A brief review, and the anticipated direction for the immediate future

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Trapping with pheromone-baited traps to monitor for the introduction of gypsy moths is an annual program in Idaho. In 2004 we found one moth in a trap located along Highway 53 near Hauser Lake. The moth looked different than those of the North American/European strain that we have caught from time to time, so we sent it for genetic analysis. The results were received on September 28, 2004 advising us that the moth was of the Asian strain (AGM). As a consequence of that find, the Idaho Department of Lands has conducted a search for evidence of other life stages in and around the area where the moth was trapped. The search included residences, businesses and forested areas. Prior to the search, crews placed notices and explanatory material at residences using door-knob bags to advise the residents of the pending search. Now, at the recommendation of a USDA Science Panel, and with the concurrence of other State and federal agencies, we are making plans to treat approximately 640 acres in the vicinity of the catch site in the late spring of 2005. Later we will conduct a greatly intensified survey. For this, we use small sticky traps baited with a sex attractant pheromone. We will deploy approximately 2,000 traps in this area in 2005, up from about 25 – 30 used in prior years. This increased trapping effort will continue for several years.

Why all the fuss? There are several reasons. The most significant is that, compared to the European strain, the Asian gypsy moth has a much wider host range. It will feed on and develop on many plants, including several of our native conifers. These include western larch, Douglas-fir, spruce, and pines. In its native range in Eastern Russia, European larch is a preferred host, which doesn't speak well for the fate of our western larch if this insect were to become established. The insect also feeds on a wide variety of deciduous trees, threatening our riparian areas and of course our urban forests and ornamental trees. Another reason for concern is that the female Asian gypsy moth, truly living up to its name, is able to fly. With flight capability it is able to disperse further compared to the North American/European variety where the female does not fly. This presents far greater challenges when trying to manage or eradicate populations of the Asian moth. When a mated female flies for 5, 10, 15 miles or farther from her site of origin, populations can spread much farther and possibly remain undetected for long periods. This could allow populations to build to high and damaging levels.

All neighboring states and several federal agencies are very concerned about Idaho's Asian gypsy moth, and we can be assured that if no action is taken we would not be very popular with our neighbors. The threat of imposition of federal and/or state quarantines against movement of any goods or materials that might be shipped or moved in any manner from the vicinity or even from the state underlies the need for a careful and quick response to this find.

Since the Asian gypsy moth is a true exotic pest with great potential for causing damage and disrupting both intra- and interstate commerce, the USDA - Animal and Plant Inspection Service (APHIS), which has national responsibilities for introduced plant

pests, has emergency funds availably for combating problems of this nature. Hence, the Idaho Department of Lands has applied for a grant to cover the costs of this expanded program. We have had previous experience conducting eradication and intensified survey programs dealing with the North American strain of the gypsy moth. These have all been successful in that no moths have ever been caught in follow-up surveys. We anticipate the same for this project.

The first Asian gypsy moths found in North America appeared to have been introduced from egg masses deposited on ships leaving ports in Eastern Russia. The female moths are attracted to lights and flew from the forests to the port areas. They landed on ships or shipping containers and deposited their eggs. These were then transported across the seas to begin hatching after arriving in our western ports. Introductions of this insect have been detected in Vancouver, BC, Canada, the ports of Seattle and Tacoma, Washington, Portland, Oregon and last year, in the port area of Los Angeles. All of these introductions have been eradicated. So, how did we find an Asian moth in Idaho? This is the farthest inland of any Asian gypsy moth find to date. We are not sure how it arrived within our borders, but it certainly has attracted a lot attention. We will probably never know how it arrived, but we suspect that it came on a container being transported by the rail road which passes close by the site where we caught the moth.

The USDA Forest Service and APHIS are working with
Russian and Japanese scientists to develop programs whereby introductions of this nature will be eliminated or at least greatly reduced, thus reducing the threat to our shores. But, we will keep up our surveys!

1. Comparison of North American / European female moths

2. larva or caterpillar of an Asian gypsy moth

Figure 5—Gypsy moth adult male.

3. male Asian gypsy moth

4. ship in a port, typical of those on which the egg masses were found